



**NOTES**

1. Aerial photography supplied by Aero-Metric Engineering, Sheboygan, Wisconsin. Date of photography: April 27, 2006.

2. Horizontal datum based on NAD 83/96.

Horizontal coordinates based on Michigan State Plane North.

3. Site Location - Project Site within Sections 2 and 11, T47N, R29W, Town of Humboldt, Marquette County, Michigan.

**LEGEND**

Soil Sample Location

(Note: TP-1 through TP-35 were completed primarily for visual characterization. Chemical analyses were completed only on TP-17 and TP-43.)



Foth Infrastructure & Environment, LLC			
REVISED	DATE	BY	DESCRIPTION
CHECKED BY:		JSL	DATE: AUG '07
APPROVED BY:		SVD1	DATE: AUG '07
APPROVED BY:			DATE:

**Kennecott**  
Eagle Minerals

**FIGURE 3-1**  
HUMBOLDT MILL PROJECT - PHASE II ESA  
HISTORICAL SOIL SAMPLE LOCATIONS

Scale: 0 150 300 Feet

Date: AUGUST 2007

Prepared by: DAT

Project No: 06W003





**NOTES**

1. Aerial photography supplied by Aero-Metric Engineering, Neboyan, Wisconsin. Date of photography: April 27, 2006.
2. Horizontal datum based on NAD 83/96.
3. Site Location - Project Site within Sections 2 and 11, T47N, R29W, Town of Humboldt, Marquette County, Michigan.

**LEGEND**

- Soil Sample Location - Not Sampled for Parameter
- Soil Sample Location - Sample Below Drinking Water Protection Criteria (< 2,100 ug/kg)
- Soil Sample Location - Sample Above Drinking Water Protection Criteria (> 2,100 ug/kg)



Foth Infrastructure & Environment, LLC			
REVISED	DATE	BY	DESCRIPTION
CHECKED BY:		JSL	DATE: AUG '07
APPROVED BY:		SVD1	DATE: AUG '07
APPROVED BY:			DATE:



**FIGURE 3-2**  
**HUMBOLDT MILL PROJECT - PHASE II ESA**  
**HISTORICAL SOIL SAMPLE LOCATIONS**  
**1, 2, 4 - TRIMETHYLBENZENE IN SOIL**

Scale: 0 150 300 Feet

Date: AUGUST 2007

Prepared by: DAT

Project No: 06W003





- NOTES**
1. Orthophotography supplied by Aero-Metric Engineering, Sheboygan, Wisconsin. Date of photography: April 27, 2006.
  2. Horizontal datum based on NAD 83/96. Horizontal coordinates based on Michigan State Plane North.
  3. Site Location - Project Site within Sections 2 and 11, T47N, R29W, Town of Humboldt, Marquette County, Michigan.

- LEGEND**
- Soil Sample Location - Not Sampled for Parameter
  - Soil Sample Location - Sample Below Drinking Water Protection Criteria (< 41,000 ug/kg)
  - Soil Sample Location - Sample Above Drinking Water Protection Criteria (> 41,000 ug/kg)



Foth Infrastructure & Environment, LLC			
REVISED	DATE	BY	DESCRIPTION
CHECKED BY:		JSL	DATE: AUG '07
APPROVED BY:		SVD1	DATE: AUG '07
APPROVED BY:			DATE:

**FIGURE 3-3**  
HUMBOLDT MILL PROJECT - PHASE II ESA  
HISTORICAL SOIL SAMPLE LOCATIONS  
ANTHRACENE IN SOIL

Scale: 0 150 300 Feet

Prepared by: DAT

Date: AUGUST 2007

Project No: 06W003





**NOTES**

1. Aerial photography supplied by Aero-Metric Engineering, Sheboygan, Wisconsin. Date of photography: April 27, 2006.
2. Horizontal datum based on NAD 83/96.
3. Horizontal coordinates based on Michigan State Plane North.
4. Site Location - Project Site within Sections 2 and 11, T47N, R29W, Town of Humboldt, Marquette County, Michigan.

**LEGEND**



- Soil Sample Location - Not Sampled for Parameter
- Soil Sample Location - Sample Below Drinking Water Protection Criteria (< 56,000 ug/kg)
- Soil Sample Location - Sample Above Drinking Water Protection Criteria (> 56,000 ug/kg)



**Foth Infrastructure & Environment, LLC**

REVISED	DATE	BY	DESCRIPTION
CHECKED BY:		JSL	DATE: AUG. '07
APPROVED BY:		SVD1	DATE: AUG. '07
APPROVED BY:			DATE:



**FIGURE 3-4**  
HUMBOLDT MILL PROJECT - PHASE II ESA  
HISTORICAL SOIL SAMPLE LOCATIONS  
PHENANTHRENE IN SOIL

Scale: 0 150 300 Feet

Date: AUGUST 2007

Prepared by: DAT

Project No: 06W003





# NOTES

1. Orthophotography supplied by Aero-Metric Engineering, Sheboygan, Wisconsin. Date of photography: April 27, 2006.
2. Horizontal datum based on NAD 83/96.
3. Horizontal coordinates based on Michigan State Plane North.
4. Site Location - Project Site within Sections 2 and 11, T47N, R29W, Town of Humboldt, Marquette County, Michigan.

# LEGEND

- Soil Sample Location - Not Sampled for Parameter
- Soil Sample Location - Sample Below Drinking Water Protection Criteria ( $< 4$  mg/kg)
- Soil Sample Location - Sample Above Drinking Water Protection Criteria ( $> 4$  mg/kg)



# Foth Infrastructure & Environment, LLC

REVISED	DATE	BY	DESCRIPTION
CHECKED BY: JSL			DATE: AUG. '07
APPROVED BY: SVD1			DATE: AUG. '07
APPROVED BY:			DATE:



# FIGURE 3-5 HUMBOLDT MILL PROJECT - PHASE II ESA HISTORICAL SOIL SAMPLE LOCATIONS CYANIDE IN SOIL

Scale: 0 150 300 Feet

Date: AUGUST 2007

Prepared by: DAT

Project No: 06W003





#### NOTES

1. Aerial photography supplied by Aero-Metric Engineering, Sheboygan, Wisconsin. Date of photography: April 27, 2006.
2. Horizontal datum based on NAD 83/96.  
Horizontal coordinates based on Michigan State Plane North.
3. Site Location - Project Site within Sections 2 and 11, T47N, R29W, Town of Humboldt, Marquette County, Michigan.

#### LEGEND

- Soil Sample Location - Not Sampled for Parameter
- Soil Sample Location - Sample Below Drinking Water Protection Criteria (< 4.3 mg/kg)
- Soil Sample Location - Sample Above Drinking Water Protection Criteria (> 4.3 mg/kg)



#### Foth Infrastructure & Environment, LLC

REVISED	DATE	BY	DESCRIPTION
CHECKED BY:		JSL	DATE: AUG. '07
APPROVED BY:		SVD1	DATE: AUG. '07
APPROVED BY:			DATE:



#### FIGURE 3-6 HUMBOLDT MILL PROJECT - PHASE II ESA HISTORICAL SOIL SAMPLE LOCATIONS ANTIMONY IN SOIL

Scale: 0 150 300 Feet	Date: AUGUST 2007
Prepared by: DAT	Project No: 06W003





**NOTES**

1. Orthophotography supplied by Aero-Metric Engineering, Sheboygan, Wisconsin. Date of photography: April 27, 2006.

2. Horizontal datum based on NAD 83/96.

Horizontal coordinates based on Michigan State Plane North.

3. Site Location - Project Site within Sections 2 and 11, T47N, R29W, Town of Humboldt, Marquette County, Michigan.

**LEGEND**

Soil Sample Location - Not Sampled for Parameter

Soil Sample Location - Sample Below Drinking Water Protection Criteria (< 4.6 mg/kg)

Soil Sample Location - Sample Above Drinking Water Protection Criteria (> 4.6 mg/kg)



Foth Infrastructure & Environment, LLC			
REVISED	DATE	BY	DESCRIPTION
CHECKED BY:		JSL	DATE: AUG. '07
APPROVED BY:		SVD1	DATE: AUG. '07
APPROVED BY:			DATE:

**Kennecott**  
Eagle Minerals

**FIGURE 3-7**  
**HUMBOLDT MILL PROJECT - PHASE II ESA**  
**HISTORICAL SOIL SAMPLE LOCATIONS**  
**ARSENIC IN SOIL**

Scale: 0 150 300 Feet	Date: AUGUST 2007
Prepared by: DAT	Project No: 06W003





**NOTES**

1. Aerial photography supplied by Aero-Metric Engineering, Sheboygan, Wisconsin. Date of photography: April 27, 2006.
2. Horizontal datum based on NAD 83/86.
3. Horizontal coordinates based on Michigan State Plane North.
4. Site Location - Project Site within Sections 2 and 11, T47N, R29W, Town of Humboldt, Marquette County, Michigan.

**LEGEND**

- Soil Sample Location - Not Sampled for Parameter
- Soil Sample Location - Sample Below Drinking Water Protection Criteria (< 6 mg/kg)
- Soil Sample Location - Sample Above Drinking Water Protection Criteria (> 6 mg/kg)



Foth Infrastructure & Environment, LLC			
REVISED	DATE	BY	DESCRIPTION
CHECKED BY:		JSL	DATE: AUG. '07
APPROVED BY:		SVD1	DATE: AUG. '07
APPROVED BY:			DATE:



**FIGURE 3-8**  
HUMBOLDT MILL PROJECT - PHASE II ESA  
HISTORICAL SOIL SAMPLE LOCATIONS  
IRON IN SOIL

Scale: 0 150 300 Feet	Date: AUGUST 2007
Prepared by: DAT	Project No: 06W003





#### NOTES

1. Aerial photography supplied by Aero-Metric Engineering, Oneboygan, Wisconsin. Date of photography: April 27, 2006.
2. Horizontal datum based on NAD 83/96.
3. Horizontal coordinates based on Michigan State Plane North.
4. Site Location - Project Site within Sections 2 and 11, T47N, R29W, Town of Humboldt, Marquette County, Michigan.

#### LEGEND

- Soil Sample Location - Not Sampled for Parameter
- Soil Sample Location - Sample Below Drinking Water Protection Criteria (< 1 mg/kg)
- Soil Sample Location - Sample Above Drinking Water Protection Criteria (> 1 mg/kg)



#### Foth Infrastructure & Environment, LLC

REVISED	DATE	BY	DESCRIPTION

CHECKED BY: JSL DATE: AUG. '07

APPROVED BY: SVD1 DATE: AUG. '07

APPROVED BY: DATE:



#### FIGURE 3-9 HUMBOLDT MILL PROJECT - PHASE II ESA HISTORICAL SOIL SAMPLE LOCATIONS MANGANESE IN SOIL

Scale: 0 150 300 Feet

Date: AUGUST 2007

Prepared by: DAT

Project No: 06W003